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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,259	04/21/2004	Tae Hee Lee	P25206	4849
7055 7590 12/17/2008 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191				
EXAMINER HECKERT, JASON MARK				
ART UNIT		PAPER NUMBER		
1792				
NOTIFICATION DATE		DELIVERY MODE		
12/17/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
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Office Action Summary

Application No.

10/828,259

Applicant(s)

LEE ET AL.

Examiner

JASON HECKERT

Art Unit

1792

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12-14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 and 17-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 12-14 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/08)
- Paper No(s)/Mail Date 11/12/08.
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/16/08 have been fully considered but they are not persuasive.
2. As stated in the previous rejection, Bolduan teaches adding more water when the discharge pressure is insufficient. As this corresponds to a low water condition, the examiner believes that shutting off the pump is well within the skill of one practicing the art, as pump starvation is well-known to be an undesirable effect due to noise, excessive wearing on the pump parts, as well as energy waste. Broker confirms that pump starvation is a condition best avoided. The examiner feels that it would be obvious to turn off the pump of Bolduan when the dynamic pressure is insufficient, which corresponds to a low water condition that is remedied by adding more water from valve 7. The control scheme of Bolduan is run continuously, and pressure is measured throughout operation. Thus, the device of Bolduan is entirely capable of repeating the steps of adding additional water if dynamic pressure is found to be insufficient again. Therefore, the rejections are maintained.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9, 12-14, 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Bolduan in view of Broker. Bolduan discloses supplying wash water to a tub and circulating it along a

circulation channel. Bolduan further discloses a sensor 12 that measures the static and dynamic pressure in the discharge line of the pump 10 as the pump is frequently stopped for short prescribed periods of time to determine water level. If the pressure exceeds a prescribed amount, such as critical water level, safety precautions are initiated. Such safety precautions include shutting off the water supply valve. The pump is started again after it is stopped briefly throughout the process. Water continues to flow in through the valve 7 if the dynamic pressure is not sufficient (paragraph 32). Bolduan is silent as to whether or not the pump is shut off during the lower water conditions, or during the addition of water. However, the examiner believes it to be obvious to shut off the pump in low water conditions. As stated previously, Bolduan gives motivation for shutting off the pump occasionally to measure static pressure (paragraph 33). Additionally, it is well known in the art to shut off a pump during low water conditions as this can create cavitation, or noise. Broker discloses that pump starvation is undesirable. If such a condition is detected, the pump is turned off. If such a condition is determined to no longer be present, such as when water level is sufficient, the pump can be turned back on (paragraph 28). Thus, it would have been obvious to one of ordinary skill in the art to turn off the pump of Bolduan if the dynamic pressure indicates an insufficient water quantity, as Broker teaches that insufficient water causes pump starvation and noise, which is undesirable. In regards to repeating the measuring of the pressure and the stopping of the pump, the control scheme of Bolduan is run continuously and pressure is measured throughout operation. Thus, the device of Bolduan is entirely capable of repeating the steps of adding additional water if dynamic pressure is found to be insufficient again.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HECKERT whose telephone number is (571)272-2702. The examiner can normally be reached on Mon. to Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art Unit
1792

JMH